

B1
con't

releasing said grip between said post member and said latching assembly when said grip means [engages] cooperates with said releasing surface; and

a moving means for,

moving said latching surface into [engagement] cooperation with said grip means, whereby said grip is effected between said post member and said latching assembly, and

moving said releasing surface into [engagement] cooperation with said grip means, whereby said grip is released between said post member and said latching assembly.

5. (Twice Amended) Apparatus of Claim 1,

wherein said grip means includes, at least, a ball, and

wherein said latching [means] assembly further [comprises] includes,

B2

an inner shell defining said passage and further defining a radial opening in said inner shell, wherein said ball is located in and radially movable within said radial opening,

an outer shell positioned outside said inner shell, wherein said inner shell is axially slidible in a first direction and a second direction with respect to said outer shell, said outer shell including, at least, a tapered portion defining a tapered inner surface adjacent to said ball, and

a biasing means for biasing said inner shell axially in said first direction such that said ball is biased into engagement with said tapered inner surface, whereby said ball is biasly urged radially inwardly into said passage, wherein said biasing means accommodates movement of said inner shell in said second direction to accommodate radial movement of said ball out of said passage.

6. (Amended) Apparatus of Claim 3,
wherein said grip means includes, at least, a [planar member] latching element, and
wherein said latching [means] assembly further includes, at least,
a housing member including, at least, an entry element defining said passage
for receiving said post member, wherein said passage defines a central
entry axis[;], and
[at least one latching element movable between an outward orientation and
an inward orientation nearer said central entry axis; and]
a biasing means extending from said latching element in a direction having a
directional component toward an opposite side of said passageway for
biasing said latching element toward said central entry axis[.], and
wherein said latching element is movable between an outward orientation and an
inward orientation nearer said central entry axis.
7. (Amended) Apparatus of Claim 6, wherein said latching [means] assembly further
includes, at least, an inward positioning means for maintaining a predetermined distance
between said latching element and said central entry axis during said inward orientation.
10. (Amended) Latching apparatus comprising:
a post member defining a central post axis and including, at least, a grip portion
defining a maximum grip portion radius and a release portion defining a maximum
release portion radius, wherein said maximum grip portion radius is greater than
said maximum release portion radius;
an engagement means for engaging said grip portion of said post member to prevent
axial movement of said post member in a first axial direction when said post
member is oriented in a first angular orientation relative to said engagement means,
and for [engaging] cooperating with said release portion of said post member to
allow axial movement of said post member in said first axial direction when said
post member is oriented in a second angular orientation relative to said
engagement means; and
a releasing means for effecting relative axial rotation between said post member and
said engagement means.

20. (Amended) Apparatus of Claim 10, wherein said engagement means includes at least one movable latch element and a biasing means for biasing said movable latch toward [engagement with] said post member.

28. (Amended) Latching apparatus comprising:

a post member defining a central post axis and including, at least,

a grip portion defined by a plurality of grip portion surface points, wherein said plurality of grip portion surface points includes at least one outer grip portion surface point which is located at a first radial distance from said central post axis and is radially displaced from said central post axis at least as far as every other grip portion surface point of said plurality of grip portion surface points, and

a release portion angularly disposed around said post member from said grip portion defined by a plurality of release portion surface points, wherein said plurality of release portion surface points includes at least one outer release portion surface point which is located at a second radial distance from said central post axis and is radially displaced from said central post axis at least as far as every other release portion surface point of said plurality of release portion surface points,

wherein said first radial distance is greater than said second radial distance; an engagement means for engaging said grip portion of said post member to prevent axial movement of said post member in [at least one] a first axial direction when said post member is in a first angular orientation relative to said engagement means, and for [engaging] cooperating with said release portion of said post member to allow axial movement of said post member in [at least one] said first axial direction when said post member is in a second angular orientation relative to said engagement means; and

a releasing means for effecting relative axial rotation between said post member and said engagement means.

Please add the following new claims 54 - 88:

26. Apparatus of Claim 10, wherein said engagement means is engaged to said release portion of said post member when said post member is oriented in said second angular orientation.

47

55. ²⁹ Apparatus of Claim ~~26~~, wherein said engagement means is engaged to said release portion of said post member when said post member is oriented in said second angular orientation.

48

56.

A latching apparatus comprising:

a post member defining a central post axis and including, at least, a grip portion defining a maximum grip portion radius and a release portion defining a maximum release portion radius, wherein said maximum grip portion radius is greater than said maximum release portion radius;

a movable latch element selectively contacting said grip portion of said post member; and

a rotation extension connected to said post member.

B7
CMMX

49

57.

The latching apparatus of Claim ~~56~~, further comprising a frame member defining a passageway having a central axis, wherein said latch element is connected to said frame member and said post member is insertable into and axially rotatable within said passageway.

50

58.

The latching apparatus of Claim ~~57~~,

wherein said latch element is movable between an outward position and an inward position nearer said central axis, and said latch element is biased toward said inward position,

wherein said latching element engages said grip portion of said post member to prevent axial movement of said post member in a first axial direction when said post member is oriented within said passageway and in a first angular orientation relative to said latching element, and

wherein said latching element cooperates with said release portion of said post member to allow axial movement of said post member in said first axial direction when said post member is within said passageway and oriented in a second angular orientation relative to said latching element.

51

59.

The latching apparatus of Claim ~~58~~, wherein said grip portion and said release portion extend axially along said post member.

32

52
60. The latching apparatus of Claim ~~58~~, wherein said latch element engages said release portion of said post member when said post member is oriented in said second angular orientation relative to said latching element.

53
61. The latching apparatus of Claim ~~58~~, wherein said grip portion of said post member includes, at least, a radially extending protrusion that abuts said latching element when said post member is oriented within said passageway and in said first angular orientation relative to said latching element.

54
62. The latching apparatus of Claim ~~58~~, wherein said grip portion and said release portion extend axially along said post member.

55
63. A gripping apparatus for receiving and releasably gripping a post member, the gripping apparatus comprising:

a frame member defining a passageway with a central axis for receiving the post member;

a plurality of latch elements movably connected to said frame member to be movable within a common plate between an outward position and an inward position nearer said central axis, and

a unitary bias member associated with at least two latch elements of said plurality of latch elements.

56
64. The gripping apparatus of claim ~~63~~, wherein said unitary bias member is connected to at least two latch elements of said plurality of latch elements.

57
65. The gripping apparatus of claim ~~63~~, wherein said unitary bias member biases each latch element of said plurality of latch elements toward said inward position.

58
66. The gripping apparatus of claim ~~63~~, wherein said plurality of latch elements includes, at least, a first latch element and a second latch element diametrically opposed to said first latch element.

59
67. The gripping apparatus of claim ~~66~~, wherein said first latch element defines a first direction of travel and said second latch element defines a second direction of travel that is collinear with said first direction of travel.

60

68. The gripping apparatus of claim ~~68~~, wherein said plurality of latch elements includes, at least,

- a first latch element defining a first direction of travel having a first radial component, and
- a second latch element defining a second direction of travel having a second radial component, wherein said first radial component and said second radial component are collinear.

61

69.

The gripping apparatus of claim ~~68~~, wherein said unitary bias member biases each latch

element of said plurality of latch elements toward said inward position.

62

70.

A latching apparatus comprising:

- a post member defining a central post axis;
- a latch frame defining a passageway having a central axis for receiving said post member and allowing said post member to rotate therein; *and*
- a latch element movably connected to said latch frame to be movable between an outward position and an inward position nearer said central axis to, while occupying said inward position, allow removal of said post member during a first angular orientation of said post member and, while also occupying said inward position, restrict removal of said post member during a second angular orientation of said post member.

63

71.

The latching apparatus of claim ~~70~~, wherein said latch element is biased toward said inward position to allow removal of said post member during said first angular orientation of said post member and restrict removal of said post member during said second angular orientation of said post member.

64

72.

The latching apparatus of claim ~~70~~,

wherein said post member further defines an axially extending grip portion and an axially extending release portion,

wherein said latch element engages said grip portion to prevent axial movement of said post member in a first axial direction when said post member is oriented within said passageway and is oriented in said *second* angular orientation relative to said latch frame, and

3A

wherein said latch element cooperates with said release portion to ~~prevent~~ ^{allow} movement of said post member in said first axial direction when said post member is oriented within said passageway and is oriented in said ~~second~~ ^{first} angular orientation relative to said latch frame.

65
~~73.~~ The latching apparatus of claim ~~72~~, wherein said grip portion defines a maximum grip portion radius and said release portion defines a maximum release portion radius, wherein said maximum grip portion radius is greater than said maximum release portion radius.

66
~~74.~~ The latching apparatus of claim ~~70~~, wherein said latch element includes at least one planar surface.

67
~~75.~~ The latching apparatus of claim ~~70~~, wherein said latch element is biased toward said inward position.

68
~~76.~~ The latching apparatus of claim ~~70~~,
wherein said latch element is a first latch element,
wherein the latching apparatus further comprises a second latch element movably connected to said latch frame to be movable between an outward position and an inward position nearer said central axis,
wherein said first latch element and said second latch element are movable within a common plane.

69
~~77.~~ The latching apparatus of claim ~~76~~, further comprising a unitary bias member that biases said first latch element and said second latch element toward said inward position.

70
~~78.~~ The latching apparatus of claim ~~76~~, wherein said first latch is distal from said second latch element.

71
~~79.~~ A latching apparatus for releasably latching a first door element, such as a vending machine door, and a second door element, such as a vending machine frame, the latching apparatus comprising:
a post member for attachment to the first door element and defining, an elongated axis,

B7 CONN X

a pair of grip surfaces that are diametrically opposed and axially extending, wherein each grip surface of said pair of grip surfaces includes, at least, protrusions extending outward therefrom, and

a pair of release surfaces that are diametrically opposed and axially extending, wherein each release surface of said pair of release surfaces defines, in profile, a flat surface; and

a latch assembly for attachment to the second door element and including, at least, a frame member defining a passageway having a central axis, wherein said post member is insertable into and rotatable within said passageway, and a pair of latch elements that are diametrically opposed, wherein each latch element of said pair of latch elements is movably connected to said frame member, movable between an outward position and an inward position nearer said central axis, and biased toward said inward position, wherein said pair of latch elements engage said pair of grip surfaces to prevent axial movement of said post member in a first axial direction when said post member is oriented within said passageway and in a first angular orientation relative to said frame member, and wherein said pair of latch elements cooperate with said pair of release surfaces to allow axial movement of said post member in said first axial direction when said post member is within said passageway and oriented in a second angular orientation relative to said frame member.

72 *71*
80. The latching apparatus of claim 39, wherein each protrusion of said protrusions extending outward from said pair of grip surfaces comprises a ridge, whereby each grip surface of said pair of grip surfaces includes, at least, a plurality of ridges, wherein said plurality of ridges at least partially surround said elongated axis of said post member, and wherein said pair of latch elements engage ridges of said plurality of ridges to prevent axial movement of said post member in said first axial direction when said post member is oriented within said passageway and in said first angular orientation relative to said frame member.

73
81. The latching apparatus of claim 79,

wherein each grip surface of said pair of grip surfaces is defined by at least one outer radius from said elongated axis, and

wherein each release surface of said pair of release surfaces is defined by at least one inner radius from said elongated axis, wherein said outer radius is greater than said inner radius.

74
82. The latching apparatus of claim 79,

wherein said post member includes, at least, a first end and a second end,

wherein said first end of said post member defines said pair of grip surfaces and said pair of release surfaces, and

wherein the latching apparatus further comprises a T-handle with a key-operated cylinder lock connected to said second end of said post member.

75
83. A method of latching a first body to a second body, the method comprising the steps of:

connecting a post member to the first body, wherein the post member defines a central post axis and includes, at least, a grip portion defining a maximum grip portion radius and a release portion defining a maximum release portion radius, wherein the maximum grip portion radius is greater than the maximum release portion radius;

movably connecting a latch element to the second body;

effecting a grip between the latch element and the post member by, at least,

effecting a first angular orientation between the post member and the latch element, and

moving the first latch element into engagement with the grip portion of the post member so that a grip is effected between the latch element and the post member; and

effecting a second angular orientation between the post member and the latch element so that the latch element cooperates with the release portion of the post member to release the grip between the post member and the latch element.

76
84. The method of claim 83, wherein the step of moving the first latch element includes, at least, allowing the latch element to move under the force of a biasing member.

77 85. The method of claim ~~83~~⁷⁵, wherein the steps of effecting a first angular orientation and effecting a second angular orientation each include, at least, rotating the post member angularly about the central post axis.

78 86. The method of claim ~~83~~⁷⁵,
wherein the step of effecting a grip further includes, at least, moving the post member into engagement with the latch element such that the latch element is moved to an outward position by overcoming the force of a biasing member, and
wherein the step of moving the latch element into engagement with the grip portion includes, at least, allowing the latch element to move to an inward position under the force of the biasing member, wherein the inward position is nearer to the central post axis than the outward position.

b7c

79 87. The method of claim ~~83~~⁷⁵,
wherein the method further comprises the step of movably connecting a second latch element to the second body, and
wherein the step of effecting a grip further includes, at least,
interposing the post member between the first latch element and the second latch element, and
moving the second latch element into engagement with the post member.

80 88. The method of claim ~~87~~⁷⁹, wherein the first latch element and the second latch element move in a common plane.

REMARKS

Applicant submits that the now pending claims 1 - 88 clearly point out the present invention and distinguish the present invention over all known art. Favorable consideration and allowance of the present application is hereby courteously requested.